

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/19496

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : F16J 15/40, 15/447; F01D 11/00, 1/02 US CL : 277/347,409-416,418-421; 415/208.2,171.1, 191 According to International Patent Classification (IPC) or to both national classification and IPC																																						
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 277/347,409-416,418-421; 415/208.2,171.1, 191 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)																																						
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>US 4,273,510 A (AMBROSCH et al) 16 June 1981 (16.06.1981), column 4, line 67 to column 5, line 12. Also see Figures 7-8.</td> <td>1-2</td> </tr> <tr> <td>---</td> <td></td> <td>-----</td> </tr> <tr> <td>Y</td> <td></td> <td>1-6</td> </tr> <tr> <td>X</td> <td>US 4,370,094 A (AMBROSCH et al) 25 January 1983 (25.01.1983), entire document</td> <td>1</td> </tr> <tr> <td>---</td> <td></td> <td>-----</td> </tr> <tr> <td>Y</td> <td></td> <td>1-6</td> </tr> <tr> <td>Y</td> <td>US 5,967,746 A (HAGI et al) 19 October 1999 (19.10.1999), see Figure 1.</td> <td>1-6</td> </tr> <tr> <td>A</td> <td>US 881,474 A (JUDE) 10 March 1908 (10.03.1908), see entire document</td> <td>1-6</td> </tr> <tr> <td>A</td> <td>US 3,575,523 A (GROSS, JR.) 20 April 1971 (20.04.1971), see Figures 1-3.</td> <td>1-6</td> </tr> <tr> <td>A</td> <td>US 2,963,307 A (ROBO) 06 December 1960 (06.12.1960), see Figures 3-4.</td> <td>1-6</td> </tr> <tr> <td>A</td> <td>US 4,420,161 A (MILLER) 13 December 1983 (13.12.1983), see entire document.</td> <td>1-6</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	US 4,273,510 A (AMBROSCH et al) 16 June 1981 (16.06.1981), column 4, line 67 to column 5, line 12. Also see Figures 7-8.	1-2	---		-----	Y		1-6	X	US 4,370,094 A (AMBROSCH et al) 25 January 1983 (25.01.1983), entire document	1	---		-----	Y		1-6	Y	US 5,967,746 A (HAGI et al) 19 October 1999 (19.10.1999), see Figure 1.	1-6	A	US 881,474 A (JUDE) 10 March 1908 (10.03.1908), see entire document	1-6	A	US 3,575,523 A (GROSS, JR.) 20 April 1971 (20.04.1971), see Figures 1-3.	1-6	A	US 2,963,307 A (ROBO) 06 December 1960 (06.12.1960), see Figures 3-4.	1-6	A	US 4,420,161 A (MILLER) 13 December 1983 (13.12.1983), see entire document.	1-6
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Date of the actual completion of the international search 21 July 2005 (21.07.2005)		Date of mailing of the international search report 06 DEC 2005																																				
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201		Authorized officer Vishal Patel Telephone No. 571-272-7060																																				

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